REMARKS

I.   Patentability Arguments

      A. <u>The Rejections Under 35 U.S.C. § 102(b) Should Be Withdrawn</u>

At page 2 of the Office Action, the Examiner maintained the rejection of claim 51 under
35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,583,016 to Villeponteau
(Villeponteau). In order to anticipate a claim, the cited prior art reference must teach each and
every element of the anticipated claim. Claim 51 is directed to 1) a composition comprising at
least one oligonucleotide, said oligonucleotide having a phosphodiester backbone, and 2) a
physiologically acceptable carrier, wherein at least one said oligonucleotide has an
oligonucleotide sequence consisting of 3) SEQ ID NO: 5 and wherein said composition is 4)
suitable for medicinal or cosmetic use. Thus, Villeponteau cannot anticipate claim 51 unless it
teaches a composition comprising SEQ ID NO: 5.

At page 3 of the Office Action, the Examiner alleges that applicants' argument that the
DNA sequence of SEQ ID NO: 2 of Villeponteau is 5'-CTAACCCTAAC-3' and the sequence is
not 100% identical to applicants' SEQ ID NO: 5, 5'-GTTAGGGTTAG-3', are not persuasive.
The Examiner then states that "the complement DNA sequence of the DNA sequence of SEQ ID
NO: 2 (5'-GATTGGGATTG-3') taught by Villeponteau is 100% identical to SEQ ID NO: 5 of
the instant invention [because] the claim does not recite the orientation of the sequence of SEQ
ID NO: 5, e.g., 5' to 3' or 3' to 5'."

The applicants respectfully submit that SEQ ID NO: 5 is properly set out in the Sequence
Listing of the above-identified patent application (a copy of which is attached as Exhibit A), in
which at page 2 in line 11, SEQ ID NO: 5 is listed in 5' to 3' orientation as GTTAGGGTTAG in
compliance with 37 CFR §§ 1.821-1.825, which requires applicants to submit oligonucleotide
strands in 5' to 3' direction since only single strands may be depicted in the "Sequence Listing,".
(MPEP 2429, paragraph 17).

The applicants therefore submit that Villeponteau cannot properly anticipate claim 51 because Villeponteau does not teach the claimed sequence. Thus, the rejection under 35 U.S.C. 102(b) should be withdrawn and withdrawal is respectfully requested.

B. The Rejections Under 35 U.S.C. § 103 Should Be Withdrawn

At page 4 of the Office action, the Examiner rejected claims 51 and 52 under 35 U.S.C. 103 as allegedly being obvious over Villeponteau taken with U.S. Patent No. 6,020,138 to Akhavan-Tafti (Akhavan-Tafti).

The Examiner characterized Akhavan-Tafti as teaching synthesizing oligonucleotides having a 5' phosphate and that such oligonucleotides can be simultaneously ligated onto a template bound primer and also teaches uses for such molecules. It also teaches oligonucleotides having a phosphodiester backbone. However, Akhavan-Tafti does not provide any motivation to prepare a single oligonucleotide having a 5' phosphate but rather suggests a number of oligonucleotides ligated via the 5' phosphate. Further, as discussed above, Villeponteau does not teach the oligonucleotide sequence claimed in the instant invention as SEQ ID NO: 5. and Akhavan-Tafti does nothing to overcome that failure.

Since Villeponteau in combination with Akhavan-Tafti fails to teach or suggest the presently claimed composition, the rejections under 35 U.S.C. § 103 should be withdrawn and applicants respectfully request the withdrawal.
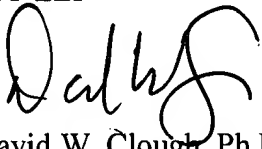
Conclusion

Applicants respectfully submit that the claims are in condition for allowance and early notification thereof is requested. In the interest of expediting prosecution, if the Examiner has questions or comments he is invited to telephone the undersigned at the indicated telephone number.
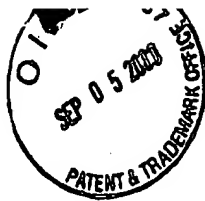
Respectfully submitted,

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SEQUENCE LISTING

<110> Gilchrest, Barbara A.
      Yaar, Mina
      Eller, Mark

<120> USE OF LOCALLY APPLIED DNA FRAGMENTS

<130> 0054.1088-015

<140> US 09/540,843
<141> 2000-03-31

<150> US 09/048,927
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Exhibit A

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